

### **Example of Usage**

The Case Mix Index (CMI) can be used to adjust the average cost per patient (or day) for a given hospital relative to the adjusted average cost for other hospitals by dividing the average cost per patient (or day) by the hospital's calculated CMI. The adjusted average cost per patient would reflect the charges reported for the types of cases treated in that year.

For example, if Hospital A has an average cost per patient of \$1,000 and a CMI of 0.80 for a given year, their adjusted cost per patient is  $\$1,000 / 0.80 = \$1,250$ . Likewise, if Hospital B has an average cost per patient of \$1,500 and a CMI of 1.25, their adjusted cost per patient is  $\$1,500 / 1.25 = \$1,200$ .

Therefore, if a hospital has a CMI greater than 1.00, their adjusted cost per patient or per day will be lowered and conversely if a hospital has a CMI less than 1.00, their adjusted cost will be higher.

### **Calculation of the Office of Statewide Health Planning and Development's (OSHPD) Case Mix Index (CMI)**

To calculate the CMI, OSHPD uses a grouper software system from the Centers for Medicare & Medicaid Services (CMS, formerly known as HCFA) and Diagnosis Related Groups (DRG) weights from the Federal Register.

- Patients are assigned to one of over 500 DRGs (based on the principal and secondary diagnoses, age, procedures performed, the presence of co-morbidity and/or complications, discharge status, and gender).
- Each DRG has a numeric weight\* reflecting the national "average hospital resource consumption" by patients for that DRG, relative to the national "average hospital resource consumption" of all patients.
- Although the DRG weights are based on resource consumption by Medicare patients, OSHPD applies them to all patient discharge data reported by hospitals in California during the course of a calendar year.
- The OSHPD case mix index is then calculated by averaging the DRG weight of patients discharged within the calendar year, i.e., the sum of the DRG weights divided by the number of patients.

\*CMS implements revisions to the DRG weights on October 1, the beginning of the Federal fiscal year. These are published annually in Table 5 of the Federal Register. OSHPD uses the version released October 1 on their data for the following calendar year.